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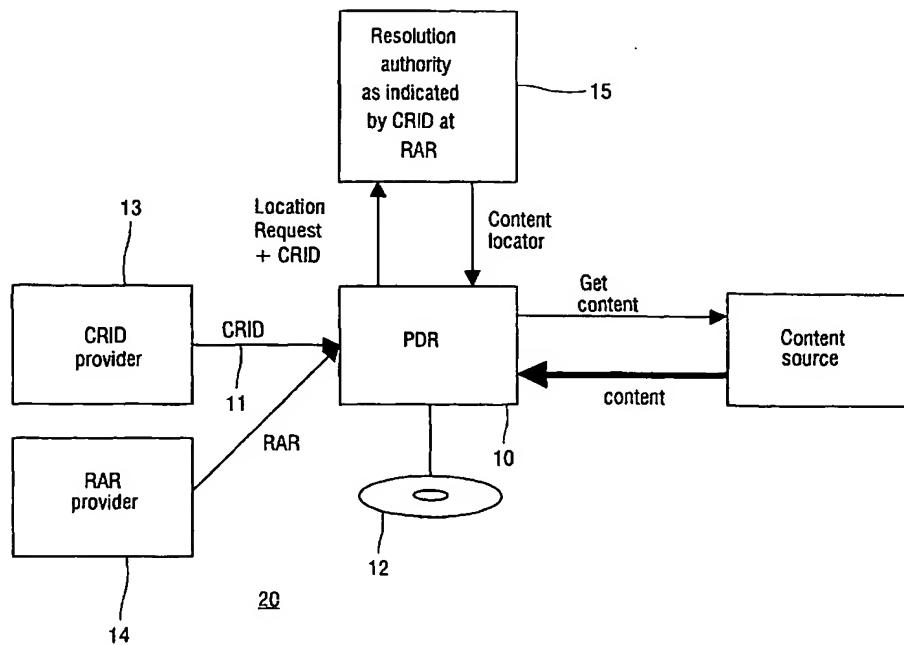
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H04N 7/173 Intellectual Property & Standards, c/o Prof. Holstlaan 6,
(21) International Application Number: PCT/IB2003/004608 (74) Agent: GROENENDAAL, Antonius, W., M.; Philips
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(71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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(75) Inventors/Applicants (for US only): VAN DEN HEUVEL, Sebastiaan, A., F., A. [NL/NL]; c/o Prof. Holstlaan 6, NL-5621 BA Eindhoven (NL). ASHLEY, Alexis, S., R. [GB/GB]; c/o Prof. Holstlaan 6, NL-5621 BA Eindhoven (NL).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR METADATA PROTECTION IN TV-ANYTIME



(57) Abstract: This invention concerns a method, system, device, and signal for the protection of the integrity of TV anytime metadata, and a signal carrying such protected information accordingly. Protection is obtained by applying a signature and certification approach. Optionally, an additional step of canning or a transform function is used. Data fragments can be labeled with a unique identifier so they can be referenced and separately signed individually or as a set by several different parties

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CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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INTERNATIONAL SEARCH REPORT

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PCT/IB 03/04608

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L29/06 H04N7/173

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|----------|---|-----------------------|
| X | EP 0 946 019 A (CANAL PLUS SA) 29 September 1999 (1999-09-29) abstract; figure 7 column 1, line 6 - column 2, line 5 | 1-3,9, 18-22 |
| Y | column 12, line 7 - column 14, line 48 ----- -/- | 4-8, 13-17 |

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

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- "E" earlier document but published on or after the international filing date
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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|----------|---|-----------------------|
| Y | <p>DONALD E. , JOSEPH M. REAGLE JR., DAVID SOLO: "XML-Signature Syntax and Processing" THE INTERNET SOCIETY & W3C, [Online] - 12 February 2002 (2002-02-12) pages 1-45, XP002270188 Retrieved from the Internet: URL:http://www.w3.org/TR/2002/REC-xmlsig-core-20020212/ [retrieved on 2004-02-13] paragraph [01.0] paragraph [02.0] - paragraph [02.1] paragraph [3.1.1] - paragraph [3.1.2] paragraph [4.3.3.1] - paragraph [4.3.3.2] paragraph [06.5] paragraph [08.1] -----</p> | 4-8, 13-17 |
| X | <p>SEDLMEYER: "MULTIMEDIA HOME PLATFORM - STANDARD 1.0.1" FERNSEH UND KINOTECHNIK, VDE VERLAG GMBH. BERLIN, DE, vol. 55, no. 10, October 2001 (2001-10), pages 593-597, 600-603, XP001101096 ISSN: 0015-0142 the whole document</p> <p>-----</p> | 1,3-6,9, 18-22 |
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB 03/04608

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-9,13-22

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9 and 13-22

separated data is expressed in XML

2. claim: 10

signature index file is added

3. claims: 11-12

unique identifier starts with a unique identification of an organisation.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 03/04608

| Patent document cited in search report | | Publication date | | Patent family member(s) | | Publication date |
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Information on patent family members

International Application No

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